

Be

#7

PCT09

RAW SEQUENCE LISTING

DATE: 06/22/2001

PATENT APPLICATION: US/09/673,400A

TIME: 11:06:45

Input Set : A:\Albre4.app

Output Set: N:\CRF3\06222001\I673400A.raw

ENTERED

3 <110> APPLICANT: SPECHT, THOMAS
 4 HINZMANN, BERND
 5 SCHMITT, ARMIN
 6 PILARSKY, CHRISTIAN
 7 DAHL, EDGAR
 8 ROSENTHAL, ANDRE
 10 <120> TITLE OF INVENTION: HUMAN NUCLEIC ACID SEQUENCES FROM HYSTEROMYOMIC TISSUE
 12 <130> FILE REFERENCE: ALBRE 4
 14 <140> CURRENT APPLICATION NUMBER: 09/673,400A
 C--> 15 <141> CURRENT FILING DATE: 2001-05-29
 17 <150> PRIOR APPLICATION NUMBER: PCT/DE99/01178
 18 <151> PRIOR FILING DATE: 1999-04-14
 20 <160> NUMBER OF SEQ ID NOS: 57
 22 <170> SOFTWARE: PatentIn Ver. 2.1
 24 <210> SEQ ID NO: 1
 25 <211> LENGTH: 779
 26 <212> TYPE: DNA
 27 <213> ORGANISM: Homo sapiens
 29 <400> SEQUENCE: 1
 30 agcgagcagc ggcggcggcg cggagagacg cagcggaggt tttcctggtt tcggacccca 60
 31 gcggccggat ggtgaaatcc tccctgcagc ggatcctcaa tagccactgc ttcgccagag 120
 32 agaaggaagg ggataaaccc agcgccacca tccacgccag ccgcaccatg ccgctcctaa 180
 33 gcctgcacag ccgcggcggc agcagcagtg agagtccag ggtctccctc cactgctgta 240
 34 gtaaccggg tccggggcct cgggtggtgct cctgatgcc ctcaccacc cctgaagatc 300
 35 ccagggtggc gaggggaatag tcaaaggac cacaatcttt cagctaactt attctactcc 360
 36 gatgatcgcc tgaatgtaac agaggaaacta acgtccaacg acaagacgag gattctcaac 420
 37 gtccagtcca ggctcacaga cgccaaacgc attaactggc gaacagtgct gagtggcggc 480
 38 actgctctac atcgagatcc cgggcggcgc gctgcccag gggagcaagg acagctttgc 540
 39 agttctcctg ggagtctgct gaggagcagc tgcgaggccg accatgtctt aatttgcttc 600
 40 cacaagaacc ccgaggacag agccgccttg ctccgaacct tcagcttttt cgggcttgag 660
 41 attttgagac cggggcatcc cttttgttcc ccaagagacc cgacgcttgc ttcattgggc 720
 42 tacaagtttc gagagagagt ctttggggag aggaagaagg attaggggcc gcgtcgggt 779
 45 <210> SEQ ID NO: 2
 46 <211> LENGTH: 2310
 47 <212> TYPE: DNA
 48 <213> ORGANISM: Homo sapiens
 50 <400> SEQUENCE: 2
 51 gttctccgaa acatggagtc ctgtaggcaa ggtcttaacct gaatcaggat gagggagtg 60
 52 tgggtccagg tggggctgct ggccgtgccc ctgcttgctg cgtacctgca catcccacc 120
 53 cctcagcgct cccctgccct tcaatcatgg aagtcttcag gcaagttttt cacttacaag 180
 54 ggactgcgta tcttctacca agactctgtg ggtgtggttg gaagtccaga gatagttgtg 240
 55 cttttacacg gttttccaac atccagctac gactggtaca agatttgga aggtctgacc 300
 56 ttgaggtttc atcgggtgat tgcccttgat ttcttaggct ttggcttcag tgacaaaccg 360
 57 agaccacatc actattccat atttgagcag gccagcatcg tggaaagcgt tttgcggcat 420
 58 ctggggctcc agaaccgcag gatcaacctt ctttctcatg actatggaga tattgttgct 480
 59 caggagcttc tctacaggta caagcagaat cgatctggtc ggcttaccat aaagagtctc 540
 60 tgtctgtcaa atggaggtat ctttctctag actcacgct cactccttct ccaaaagcta 600

RAW SEQUENCE LISTING

DATE: 06/22/2001

PATENT APPLICATION: US/09/673,400A

TIME: 11:06:45

Input Set : A:\Albre4.app

Output Set: N:\CRF3\06222001\I673400A.raw

```

61 ctcaaagatg gaggtgtgct gtcacccatc ctcacacgac tgatgaactt ctttgtattc 660
62 tctcgaggtc tcaccccagt ctttggggccg tatactcggc cctctgagag tgagctgtgg 720
63 gacatgtggg cagggatccg caacaatgac ggggaacttag tcattgacag tctcttacag 780
64 tacatcaatc agaggaagaa gttcagaagg cgctgggtgg gagctcttgc ctctgtaact 840
65 atccccattc attttatcta tgggccattg gatcctgtaa atccctatcc agagtttttg 900
66 gagctgtaca ggaaaacgct gccgcggtcc acagtgtcga ttctggatga ccacattagc 960
67 cactatccac agctagagga tcccatgggc ttcttgaatg catatatggg cttcatcaac 1020
68 tccttctgag ctggaaagag tagcttccct gtattacctc ccctactccc ttatgtgttg 1080
69 tgtattccac ttaggaagaa atgccccaaa gaggtcctgg ccatcaaaca taattctctc 1140
70 acaaagtcca ctttactcaa attggtgaac agtgtatagg aagaagccag caggagctct 1200
71 gactaagggt gacataatag tccacctccc attactttga tatctgatca aatgtataga 1260
72 cttggctttg ttttttgtgc tattaggaaa ttctgatgag cactactatt cactgatgca 1320
73 gaaagacgtt cttttgcata aaagactttt tttaacactt tggacttctc tgaaatattt 1380
74 agaagtgtca atttctggcc ccccccaac aggaattcta tagtaagggg gaggagaagg 1440
75 ggggctcctt ccctctctcc gaatgacgtt atgggcacat gcctttttaa agttctttta 1500
76 gcaacacaga gctgagtcct ctttgtcata cctttggatt tagtgtttca tcagctgttt 1560
77 ttagttataa acattttgtt aaaatagata ttggttttaa tgatacagta ttttaggtat 1620
78 gatttaagac tatgatttac ctatacatta tatatatatt ataaagatac taaaccagca 1680
79 tacccttact ctgccagagt agtgaagcta attaaacacg tttggtttct gaataaattg 1740
80 aactaaatcc aaactatttc ctaaaatcac aggacattaa ggaccaatag catctgtgcc 1800
81 agagatgtac tgttattagc tgggaagacc aattctaaca gcaaataaca gtctgagact 1860
82 cctcatacct cagtgggttag aagcatgtct ctcttgagct acagtagagg ggaagggatt 1920
83 gttgtgtagt caagtcacca tgcgtaatgt acaactgattc ctttatgatg actgcttaac 1980
84 tccccactgc ctgtcccaga gaggttttcc aatgtagctc agtaattcct gttactttac 2040
85 agacaggaaa gttccagaaa ctttaagaac aaactctgaa agacctatga gcaaagtgtg 2100
86 ctgaatactt ttttttttaa gccacatttc attgtcttag tcaaagcagg attattaagt 2160
87 gattatttaa aattcgtttt tttaaattag caacttcaag tataacaact ttgaaactgg 2220
88 aataagtgtt tattttctat taataaaaat gaattgtgac aaaaaaaaaa aaaggcttcg 2280
89 gcttttgaag tctatgtgtg gggggggggg 2310

```

92 <210> SEQ ID NO: 3

93 <211> LENGTH: 854

94 <212> TYPE: DNA

95 <213> ORGANISM: Homo sapiens

97 <400> SEQUENCE: 3

```

98 ctgcacgggg gctcgggctc actataaaag gtgggagcgc gtggtgcccc agcaacgacg 60
99 agtttcagaa cgatggagag ctcccgcgtg aggtcgtctc ccctcctggg cgccgccctg 120
100 ctgctgatgc tacctctgtt ggggtaccgt gccaggagg acgccgagct ccagccccga 180
101 gccctggaca tctactctgc cgtggatgat gcctcccacg agaaggagct gatcgaagcg 240
102 ctgcaagaag tcttgaagaa gctcaagagt aaacgtgttc ccatctatga gaagaagtat 300
103 ggccaagtcc ccatgtgtga cgccggtgag cagtgtgcag tgaggaaagg ggcaaggatc 360
104 gggaaagctgt gtgactgtcc ccgaggaacc tcttgcaatt ccttctcctt gaagtgttta 420
105 tgaaggggag tccattctcc tccatacatc cccatccctc tactttcccc agaggaccac 480
106 accttctctc ctggagtttg gcttaagcaa cagataaagt ttttattttc ctctgaaggg 540
107 aaagggctct tttcctgctg tttcaaaaat aaaagaacac attagatgtt actgtgtgaa 600
108 gaataatgcc ttgtatggtg ttgatacgtg tgtgaagtat tcttatttta tttgtctgac 660
109 aaactcttgt gtacctttgt gtaaagaagg gaagctttgt ttgaaaattg tatttttgtta 720
110 tgtggcatgg cagaatgaaa attagatcta gctaactctg gtagatgtca ttacaacctg 780
111 gaaaataaat caccctaagt gacacaaatt gaagcatgta caaattatac ataataaagt 840
112 gtttttaata attg 854

```

RAW SEQUENCE LISTING

DATE: 06/22/2001

PATENT APPLICATION: US/09/673,400A

TIME: 11:06:45

Input Set : A:\Albre4.app

Output Set: N:\CRF3\06222001\I673400A.raw

115 <210> SEQ ID NO: 4

116 <211> LENGTH: 1112

117 <212> TYPE: DNA

118 <213> ORGANISM: Homo sapiens

120 <400> SEQUENCE: 4

```

121 cgccagcccc gtcgggggccc cggagggggac tcggagcggg ccaagggggcg gctccggcgg 60
122 gcggactcgg agcggggcggc ggagtgaccc ggacagctgt cctctctgac accaccccg 120
123 cctgcctctt tgttgccatg agagctgcct acctcttctt gctattcctg cctgcaggct 180
124 tgctggctca gggccagtat gacctggacc cgctgccgcc gttccctgac cacgtccagt 240
125 acaccacta tagcgaccag atcgacaacc cagactacta tgattatcaa gaggtgactc 300
126 ctgggccctc cgaggaacag ttccagttcc agtcccagca gcaagtccaa caggaagtca 360
127 tcccagcccc aaccccagaa ccaggaaatg cagagctgga gcccacagag cctgggcctc 420
128 ttgactgccg tgaggaacag taccogtgca cccgcctcta ctccatacac aggccttgca 480
129 aacagtgtct caacgagggtc tgcttctaca gcctccggcg tgtgtacgtc attaacaagg 540
130 agatctgtgt tcgtacagtg tgtgcccatt aggagctcct ccgagctgac ctctgtcggg 600
131 acaagttctc caaatgtggc gtgatggcca gcagcggcct gtgccaatcc gtggcggcct 660
132 cctgtgccag gagctgtggg agctgctagg gtggtgctgg catcctgagt cctggccctc 720
133 ctgggatctg gggccctcgg gccctgcctg acctggtgct tttttcccca tccccatggt 780
134 cctttttatt tgtaaaaagt tagtggactg cagccctggg ggttgacagg tgcggtgcct 840
135 caggccctcc ctccagcctg tggccacctc tggggcacga tgggggctcc cactgccca 900
136 gtctgcccct cgggttgggg gagtatccca ggctctctg tgggacctg ggccctgacg 960
137 ggcccttctc gcccgttttg aggacagaca gtcccccgag gtaggctaca tccccccacc 1020
138 ccagctggtc tgcttggtatt tctacagcc cccgtgggca tggaccacct ttattttata 1080
139 caaaattaaa aacaagtttt tacaaaaaaa aa 1112

```

142 <210> SEQ ID NO: 5

143 <211> LENGTH: 1051

144 <212> TYPE: DNA

145 <213> ORGANISM: Homo sapiens

147 <400> SEQUENCE: 5

```

148 gcgcaggcgc gaagaagctg gcaggggac gagccggggg cgggtttgaa gacgcgtcgt 60
149 tgggttttgagg gcccggtgaa acagccgttt gagtttggt gcgggtggag aacgtttgtc 120
150 aggggcccgg ccaagaagga gggccgcctg ttacgatggt gtccatgagt ttcaagcgga 180
151 accgcagtga ccggttctac agcaccgggt gctgcggctg ttgccatgtc cgcaccggga 240
152 cgatcatcct ggggacctgg tacatggttag taaacctatt gatggcaatt ttgctgactg 300
153 tgggaagtga tcattccaaac tccatgccag ctgtcaacat tcagtatgaa gtcacgggta 360
154 attactattc gtctgagaga atggctgata atgctgtgt tctttttgcc gtctctgttc 420
155 ttatgtttat aatcagttca atgctggttt atggagcaat ttcttatcaa gtgggttggc 480
156 tgattccatt cttctgttac cgactttttg acttcgtcct cagttgcctg gttgctatta 540
157 gttctctcac ctatttgcca agaatacaag aatatctgga tcaactacct gattttccct 600
158 acaaagatga cctcctggcc ttggaactca gctgcctcct gttcattgtt cttgtgttct 660
159 ttgccttatt catcattttt aaggcttatt taattaactg tgtttggaac tgctataaat 720
160 acatcaacaa ccgaaacgtg ccggagattg ctgtgtaccc tgcctttgaa gcacctctc 780
161 agtacgtttt gccaacctat gaaatggccg tgaaaatgcc tgaaaaagaa ccaccacctc 840
162 cttacttacc tgctgaaga aattctgcct ttgacaataa atcctatacc agctttttgt 900
163 ttgtttatgt tacagaatgc tgcaattcag ggctcttcaa acttgtttag atataaaata 960
164 tgggtggcct ttggttttaa agcaatttat tttccaaaac actaaggagg cttttttgga 1020
165 catctggtta aacggccttt ttgggttttt t 1051

```

168 <210> SEQ ID NO: 6

169 <211> LENGTH: 1516

RAW SEQUENCE LISTING

DATE: 06/22/2001

PATENT APPLICATION: US/09/673,400A

TIME: 11:06:46

Input Set : A:\Albre4.app

Output Set: N:\CRF3\06222001\I673400A.raw

170 <212> TYPE: DNA

171 <213> ORGANISM: Homo sapiens

173 <400> SEQUENCE: 6

```

174 gttgtcctca tccctctcat acaggggtgac caggacgttc ttgagccagt cccgcatgcg 60
175 cagggggaag aagatccatg agaaggagaa gcgcctggag gcaggagacc acccctgga 120
176 gctgctggcc cgggacttcg agaagaacta taacatgtac atcttccctg tacactggca 180
177 gttcggccag ctggaccagc accccattga cgggtacctc tcccacaccg agctggctcc 240
178 actgcgtgct cccctcatcc ccatggagca ttgcaccacc cgctttttcg agacctgtga 300
179 cctggacaat gacaagtaca tcgccctgga tgagtgggccc ggctgcttcg gcatcaagca 360
180 gaaggatata gacaaggatc ttgtgatcta aatccactcc ttccacagta cgggattctc 420
181 tctttaaccc tccccttcgt gtttccccca atgtttaaaa tgtttggatg gtttgttgtt 480
182 ctgcctggag acaaggtgct aacatagatt taagtgaata cattaacggt gctaaaaatg 540
183 aaaattctaa cccaagaaca tgacattctt agctgtaact taactattaa ggccttttcc 600
184 acacgcatta atagtcccat ttttctcttg ccattttagt ctttgcccat tgtcttattg 660
185 ggcacatggg gtggacaagg atctgctggg ctctgcctta aacacacatt gcagcttcaa 720
186 cttttctctt tagtgctctg ttgaaacta atacttaccg agtcagactt tgtgttcatt 780
187 tcatttcagg gtcttggtcg cctgtgggct tccccagggt gcctggagggt gggcaaaggg 840
188 aagtaacaga cacacgatgt tgtcaaggat ggttttgga ctagaggctc agtgggtgga 900
189 gagatccctg cagaaccac caaccagaac gtggtttgcc tgaggctgta actgagagaa 960
190 agattctggg gctgtgttat gaaaatatag acattctcac ataagcccag ttcattacca 1020
191 tttcctcctt tacctttcag tgcagtttct tttcacatta ggctgttggg tcaaactttt 1080
192 gggagcacgg actgtcagtt ctctgggaag tggtcagcgc atcctgcagg gcttctcctc 1140
193 ctctgtcttt tggagaacca gggctcttct caggggctct agggactgcc aggtgtttc 1200
194 agccaggaag gccaaaatca agagtgaagt gtagaaagt gtaaaataga aaaagtggag 1260
195 ttggtgaatc ggttgttctt tcttcacatt tggatgattg tcataagggt tttagcatgt 1320
196 tctcctttt ctccaccctc ccttttttcc cccaagaat acagagaaaa ctcaaagtta 1380
197 atggggaggg tcggatccta caggcctgag aatcggtcaa ctccaagcat ttcattgaaa 1440
198 aggcggcttc ctaattaatc ctacaaaccc ccaccagga tggtagaggg tttaccaat 1500
199 tctccaaaa ataaaa 1516

```

202 <210> SEQ ID NO: 7

203 <211> LENGTH: 2367

204 <212> TYPE: DNA

205 <213> ORGANISM: Homo sapiens

207 <400> SEQUENCE: 7

```

208 cgccgggact cttggcgggt gaaggtgtgt gtcagctttt gcgtcactcg agccctgggc 60
209 gctgcttgct aaagagccga gcacgcgggt ctgtcatcat gtcgcgttac ggcgggtacg 120
210 gaggagaaac caaggtgtat gttggaacc tgggaactgg cgctggcaaa ggagagttag 180
211 aaagggtctt cagttattat ggtcctttaa gaactgtatg gattgcgaga aatcctccag 240
212 gatttgcctt tgtggaattc gaagatccta gagatgcaga agatgcagta cgaggactgg 300
213 atggaaagggt gatttgtggc tcccgagtga gggttgaact atcgacaggc atgcctcgga 360
214 gatcacgttt tgatagacca cctgcccgac gtccctttga tccaaatgat agatgctatg 420
215 agtgtggcga aaaggacat tatgcttatg attgtcatcg ttacagccgg cgaagaagaa 480
216 gcaggtcacg gtctagatca cattctcgat ccagaggaag gcgatactct cgctcacgca 540
217 gcaggagcag gggacgaagg tcaaggtcag catctcctcg acgatcaaga tctatctctc 600
218 ttcgtagatc aagatcagct tcaactcagaa gatctaggtc tggttctata aaaggatcga 660
219 ggtatttcca atccccgtcg aggtcaagat caagatccag gtctatttca cgaccaagaa 720
220 gcagccgata aaagtccaga tctccatctc caaaaagaag tcgttccccca tcaggaagtc 780
221 ctgcgagaag tgcaagtcct gaaagaatgg actgaagtc tcaagttcac ctttaggga 840
222 aaagttattt tgtttacatt attataaggg atttgtgatg tctgtaaagt gtaacctagg 900

```

RAW SEQUENCE LISTING

DATE: 06/22/2001

PATENT APPLICATION: US/09/673,400A

TIME: 11:06:46

Input Set : A:\Albre4.app

Output Set: N:\CRF3\06222001\I673400A.raw

```

223 aaagataatt caaccatcta atcaaaatgg atctggatta ctatgtaaatt tcacagcagt 960
224 aagataatat aaattttgtt gaatgtatta acatcatatg gtctgaaaat gtgggttttt 1020
225 atttggcaca tttaaataaa atgtttctaa ctagattttt gatttgtgtt caatattaac 1080
226 acttcttaatt ttgatataatt tgagagtcag acattataat tgtaaacctt attcatacat 1140
227 acctacattc agaattgaaa ggtgttggtt aagtcttgaa catcactatt ctatgcataa 1200
228 aacttgcca ggatcttaag ggactttgaa aattccatct tacccttgta gctctgggta 1260
229 agatgacctg agtcccttat gatacagcct gaatgcatca tgacagatcc ttaagtttagc 1320
230 taatccgttt gaagttgggtg ttagtaggta ttgtatgac agtggtgaag caagtaggac 1380
231 cactgatgtg tctaaatgag catgacagga actaaacgaa actgattaaa tgtatgagaa 1440
232 atagaaactg atttctggat gatctttata ctaattgcag ctttcaggct actaggtggc 1500
233 atagtgttaa ttaggactcc ccaagatatg gggagtctta ctctcaatgg tcttgtttct 1560
234 ttgctttcta cattagttaa ccagttttat accaaaaaat gcatgtttga ggaattgtct 1620
235 gaaattggga caaacacct tcatgtaaac cagctttgca aaattttcca gccagatac 1680
236 tcttcatcta ttcaaattga ttgtcttatt ctgagcaaag acctgttgtt aatcttcaag 1740
237 ctaggttttg cagttcccaa ccacaacatt cttctatttt gccaggctgg tgcaaagtaa 1800
238 ttaaagatgt caatcagaaa tgtcaatgag actaaagtgg ttttgtaaat ctcagctata 1860
239 ttttagcaaca ctccatgtag ctaatatttt ttggtagcat ctggtagacc ttagaatgtt 1920
240 acatagccag taggttcttt attcaaattt taagtatctt aagaatagta gggcagtaac 1980
241 agttactttt gagagttttc tggcgaagct tttaccaggc attctctagc cttggtacaa 2040
242 aaaaaaaaaa aacctgctgg ttgctgagat acctaggctt gtccatttta tgcatttcag 2100
243 caaagtcatt ggatactatt gcaacttggg aatactggtc tgcatacagt ttattcggta 2160
244 gtttgaccgc tagtatgttg gaagttattt ggattgtttt tgggaattttg actggctgaa 2220
245 ttatggttgg tataaagtta tgtgtataac tggcaggctt atttatctgt tgcacttggg 2280
246 tagctttaat tgttctgtat ttttaaga taagtttact caacaataaa tctgcagaga 2340
247 ttgaacaaat aaaaaaaaaa aaaaaaa 2367

```

250 <210> SEQ ID NO: 8

251 <211> LENGTH: 568

252 <212> TYPE: DNA

253 <213> ORGANISM: Homo sapiens

255 <400> SEQUENCE: 8

```

256 ctcgagccgt gggcagtggc cgcgaatgcg cggagacact gaccttcagc gcctcggctc 60
257 cagcgccatg gcgccctcca ggaagttctt cgttggggga aactggaaga tgaacgggcg 120
258 gaagcagagt ctgggggagc tcatcggcac tctgaacgcg gccaaaggtg cgccgacac 180
259 cgaggtggtt tgtgtctccc ctactgccta tctcgacttc gcccggcaga agctagatcc 240
260 caagattgct gtggctgcgc agaactgcta caaagtgact aatggggctt ttactgggga 300
261 gatcagccct ggcagatca aagactgcg agccacgtgg gtggtcctgg ggcactcaga 360
262 gagaaggcat gtctttgggg agtcagatga gctgattggg cagaaagtgg cccatgctct 420
263 ggcagagggg ctcggagtaa tcgctgcat tggggagaag ctagatgaaa gggaagctgg 480
264 catcactgag aatgttgttt tcgagcagac aaaggtcatc ggggatgact tgaaggactg 540
265 gatcaagttc gtcttggcct gttggcct 568

```

268 <210> SEQ ID NO: 9

269 <211> LENGTH: 1775

270 <212> TYPE: DNA

271 <213> ORGANISM: Homo sapiens

273 <400> SEQUENCE: 9

```

274 ctcggggggc attttgtgaa gagacgaaga ctgagcgggt gtggccgcgt tgccgacctc 60
275 cagcagcagt cggttctct acgcagaacc cgggagtagg agactcagaa tcgaatctct 120
276 tctccctccc cttcttgtga gattttttt atcttcagct acattttcgg ctttgtgaga 180
277 aaccttacca tcaaacacga tggccagcaa cgttaccac aagacagatc ctcgctccat 240

```

VERIFICATION SUMMARY

DATE: 06/22/2001

PATENT APPLICATION: US/09/673,400A

TIME: 11:06:47

Input Set : A:\Albre4.app

Output Set: N:\CRF3\06222001\I673400A.raw

L:15 M:271 C: Current Filing Date differs, Replaced Current Filing Date